27 Aug 01

DEPARTMENT OF THE AIR FORCE
Aerospace Basic Course (AETC)
Maxwell Air Force Base, Alabama 36112

LESSON PLAN

A3060, OPERATION ALLIED FORCE

CONTENTS

RECORD OF CHANGES

CHANGE NUMBER	REMARKS
New Lesson Plan	Supercedes ABC lesson 1340 dated 7 Aug 00

SUMMARY OF CHANGES

EDUCATIONAL GOALS

A3000 Area Objective: Comprehend the significance of aerospace history and doctrine to modern warfare.

A3060 - OPERATION ALLIED FORCE

Lesson Objective 1: Comprehend how the Air Force Core Competencies contributed to Operation ALLIED FORCE.

Samples of Behavior:

(R/S) 1.1 - Describe how Air Force Core Competency successes contributed to Operation ALLIED FORCE.

(R/S) 1.2 - Describe how Air Force Core Competency difficulties hindered Joint force performance in Operation ALLIED FORCE.

Lesson Objective 2: Comprehend the significance of Operation ALLIED FORCE as the basis for further development of Air Force and Joint doctrine.

Samples of Behavior:

(R/S) 2.1 - Describe how Operation ALLIED FORCE illustrated weaknesses in force and staff augmentation techniques.

(R/S) 2.2 - Summarize the rationale for the Air Force's decision to declare the AOC as an official "weapons system."

(R/S) 2.3 - Explain the impact of Coalition warfare on our ability to conduct aerospace operations according to our doctrinal ideals.

(R/S) 2.4 - Describe how Operation ALLIED FORCE illustrated the existence of limits to the flexibility of airpower.

(R/S) 2.5 - Explain the impact of the increasingly complex political-military environment on conducting aerospace operations.

Lesson Objective 3: Know the similarities and differences between the role and employment of aerospace power in Operation ALLIED FORCE and Operation DESERT STORM.

Sample of Behavior:

(R/S) 3.1 - List the similarities and differences between the role and employment of aerospace power in Operation ALLIED FORCE and Operation DESERT STORM.

Lesson Description: In this lesson, students discuss Operation ALLIED FORCE and the employment of Air Force Core Competencies during the campaign. Students will focus on lessons learned from Operation ALLIED FORCE in order to develop their own perspectives on how the experience and analysis of Operation ALLIED FORCE can provide the basis for developing tomorrow's military theories and doctrine.

Prerequisites: A1300 Phase of instruction
A1610, The JAOP
A3010, Theory, Doctrine, Objectives, and Strategy
A3050, Operation DESERT STORM

Preparation: Read A3060, Operation ALLIED FORCE.
Review AFDD 1, pp. 27-35.

Optional: N/A

Rationale/Linkage: This lesson and A3050, Operation DESERT STORM, are case studies in the history of aerospace operations. These two lessons give students opportunities to discuss historical examples of aerospace operations--opportunities unavailable to students in lectures A3020, Origin and Theory of Airpower; A3030, Forged in Fire, Part I; and A3040, Forged in Fire, Part II. Students should discuss how the experience and analysis of these aerospace operations can provide the basis for developing military theories and doctrine. (Students discussed that concept in A3010, Theory, Doctrine, Objectives, and Strategy.) Operation ALLIED FORCE was the first major campaign for which the entire campaign was an aerospace campaign--no ground war was fought. Students should understand how this operation can be the catalyst for change in military theory and doctrine. In addition, students should debate how well the Air Force performed its six Core Competencies during Operation ALLIED

FORCE. This lesson and A3050 encourage students to draw intelligent conclusions and to debate, perhaps heatedly, the similarities and differences between the way the military prosecuted both Operation DESERT STORM and Operation ALLIED FORCE. These two lessons also inspire students to continue their life-long learning in the area of Military Studies.

INSTRUCTIONAL PLAN

1. **TITLE AND LENGTH OF SEMINAR:** Operation ALLIED FORCE (1:30)

2. **RELATION TO OTHER INSTRUCTION:** This lesson and A3050, Operation DESERT STORM, are case studies in the history of aerospace operations. These two lessons give students opportunities to discuss historical examples of aerospace operations--opportunities unavailable to students in lectures A3020, Origin and Theory of Airpower; A3030, Forged in Fire, Part I; and A3040, Forged in Fire, Part II. Students should discuss how the experience and analysis of these aerospace operations can provide the basis for developing military theories and doctrine. (Students discussed that concept in A3010, Theory, Doctrine, Objectives, and Strategy.) Operation ALLIED FORCE was the first major campaign for which the entire campaign was an aerospace campaign--no ground war was fought. Students should understand how this operation can be the catalyst for change in military theory and doctrine. In addition, students should debate how well the Air Force performed its six Core Competencies during Operation ALLIED FORCE. This lesson and A3050 encourage students to draw intelligent conclusions and to debate, perhaps heatedly, the similarities and differences between the way the military prosecuted both Operation DESERT STORM and Operation ALLIED FORCE. These two lessons also inspire students to continue their life-long learning in the area of Military Studies.

3. **GENERAL METHOD OF INSTRUCTION:**

   a. Presentation Method: Guided discussion

   b. Time Outline:

Segment Time	Total Time	Description
0:05	(0:05)	Introduction
0:40	(0:45)	MP I: Operational-level Considerations
0:40	(1:25)	MP II: Core Competencies and Operation ALLIED FORCE
0:05	(1:30)	Conclusion

c. Instructor Preparation:

- Review the lesson plan.
- Read A3060, Operation ALLIED FORCE.
- Review AFDD 1, pp. 27-35.
- Read Joint Pub 5, page xii.

d. Instructional Aids/Handouts:

- None

e. Student Preparation:

- Read A3060, Operation ALLIED FORCE.
- Review AFDD 1, pp. 27-35.

f. Strategy: This lesson is a guided discussion focusing on lessons learned during Operation ALLIED FORCE. The discussion is organized into two main points: First, discuss some of the operational-level considerations of Operation ALLIED FORCE, as covered in the reading. Then, discuss how the Air Force employed its Core Competencies in Operation ALLIED FORCE. Be sure students understand how Operation ALLIED FORCE established a precedent for future operations and for further development of Air Force and Joint doctrine. Encourage students to discuss the impact of politics on military operations and to reflect on their own experiences in studying the history of military operations.

g. References: The Air War Over Serbia: Aerospace Power in Operation Allied Force, Initial Report by Headquarters United States Air Force. A significant part of the student reading comes from this source.

Alford, Stefan. "AOC declared official weapons system." Air Force News 12 Sep 00. Online. http://www.af.mil/news/Sep2000/n20000911_001380.html

4. **DETAILS OF INSTRUCTION**:

a. Introduction: 0:05 (0:05)

1) //Attention//

In A3010, Theory, Doctrine, Objectives, and Strategy, you learned how military theories and doctrine arise from historical events. Now, we're going to discuss Operation ALLIED FORCE—the most recent example where the US Air Force performed military operations at levels equivalent to a major theater war (MTW), fought by the Joint force, in conjunction with our NATO allies.

2) //Motivation//

Each of you could discover that the ideas we discuss in this lesson will play a major part in your careers. After all, up until now, we've talked about Air Force doctrine (and some Joint doctrine) as something you must learn. But in this lesson, we're going to talk about doctrine as something that must evolve due to the lessons learned in Operation ALLIED FORCE. If you haven't realized your role in this process, let me make it clear to you now: As Airmen--and officers--you have a voice in the development of tomorrow's doctrine. Even if you never end up working at the Air Force Doctrine Center, your views on aerospace power history and theory matter.

*{**Instructor Note:** Before the Overview, ask prior-enlisted students whether they were in the Service during this conflict. If so, ask them to elaborate on any of their experiences from that time period. You can also ask any of your students if they would be willing to speak about friends or family members who had served during this conflict. At your discretion, you may take the opportunity to discuss these experiences before you begin, or you may return to them when they fit into the lesson as outlined below.}*

3) //Overview//

We'll start by covering several of the operational-level considerations that factored into Operation ALLIED FORCE. We'll discuss how these considerations will help shape the continuing evolution of Air Force and Joint doctrine. Then, we'll discuss how the Air Force Core Competencies contributed to different aspects of the campaign, and how they, too, provided "lessons learned" regarding the employment of airpower during the war.

b. MP I: Operational-level Considerations: 0:40 (0:45)

QUESTIONS

*{**Instructor Note:** Throughout this lesson plan, most of the Anticipated Responses are selections from <u>The Air War Over Serbia: Aerospace Power in Operation Allied Force</u>, Initial Report by Headquarters United States Air Force, including page numbers where you can find these selections in the original text. The student reading is also derived largely from this text. This lesson plan is designed to help you organize sections of the text into a series of guiding questions.*

*To minimize the confusion of trying to refer to both the lesson plan and the text while you teach the lesson, edited selections of the text appear below, for your reference. Of course, you **<u>don't</u>** need to discuss all of the Anticipated Responses! They are here to help you guide the discussion: The selections here will help you handle a variety of responses and point out key passages to the students, too.}*

LEAD OFF QUESTION (LOQ): WE FOUGHT OPERATION DESERT STORM WITH A MILITARY STRUCTURED TO FIGHT THE COLD WAR. HOW DID THE NATION REFORM THE MILITARY <u>AFTER</u> THE COLD WAR ENDED?

ANTICIPATED RESPONSES (AR):

- We seriously drew down force levels--in both personnel and equipment.
- As General Ryan said, the Air Force had "by percentage of active force aircraft... a <u>greater</u> portion deployed or engaged during this period than we had during Desert Storm or Vietnam." (46)
- In the last decade alone, USAFE strength drew down so dramatically as to focus attention on the potential risks of preserving national and NATO interests in the theater. (37)

FOLLOW UP QUESTION (FUQ): AT THE OPERATIONAL LEVEL OF WARFARE, HOW DID THIS DRAW-DOWN AFFECT USAFE'S ABILITY TO CONDUCT OPERATION ALLIED FORCE?

AR:

- USAFE'S multiple missions--as an Air Force major command, USEUCOM component, and force provider to NATO--competed for staff support during the air war over Serbia. (37)

- Some 333 additional staff members were assigned to USAFE headquarters. Yet even this level of augmentation proved insufficient, and many headquarters management functions were suspended until the conclusion of Operation Allied Force. (37)
- Because of similar manning shortages at USAFE's numbered air forces, the USAFE headquarters staff had to augment still other battle staffs in Operation Allied Force--such as at the Joint Task Forces and Air Force Forces. (37)

FUQ: JUST HOW "STRETCHED THIN" WAS USAFE'S COMMAND STAFF? HOW DOES THIS DIRECTLY INDICATE THE INADEQUACIES OF MAINTAINING CURRENT "DRAW-DOWN" STAFFING LEVELS FOR TOMORROW'S COALITION EFFORTS?

AR:

- During the Cold War, USAFE focused on meeting the Warsaw Pact threat from well-developed airfields with well-defined and properly-resourced plans. (37)
- NATO's new strategy for preserving Alliance interests in out-of-area operations, for example, has reshaped and refocused USAFE's staff efforts.
- Today, USAFE's staffs and forces must be prepared to deploy anywhere from Norway to South Africa--operating from airfields ranging from major airports to bare bases, using contingency plans and limited resources. (37)

FUQ: THE "OLD SCHOOL" RESPONSE TO PERSONNEL SHORTAGES IS TO SEND "BODIES"--<u>ANY</u> BODIES. HOW WELL DID THAT RESPONSE WORK IN ALLIED FORCE, FOR STAFFING THE COMBINED AIR OPERATIONS CENTER (CAOC)?

AR:

- Not so well:
- Over the course of the air campaign, CAOC manning grew from a peacetime level of 300 to over 1,400 personnel (38)
- Many of these new personnel had little or no training in ATO processes.
- Rotational or temporary staffs and *ad hoc* organizational structures impeded the rapid and seamless transition from peace to war. (38)

FUQ: WHAT MAJOR STEP HAS THE AIR FORCE ALREADY TAKEN TO REMEDY THIS SITUATION?

AR:

*{**Instructor Note:** From the 12 Sep 2000 Air Force News, online:*

"[On 8 Sep 00, Air Force Chief of Staff Gen. Michael E. Ryan said,] 'I declare the AOC as an official weapons system today….' As an integral component of the aerospace power equation, Ryan said the next step in the process is to identify the specialty codes, training pipeline, career path and currency requirements associated with the AOC as a weapons system.

'We need a baselining of the capabilities in that weapons system, just as we do in our capabilities in something like an F-16,' said the Air Force's senior leader. '(In the F-16) we have a crew chief that knows how to maintain it and we have pilots that know how to fly it. We have to have the same concept for our aerospace operations centers.'"}

- The Air Force has already declared the AOC is a "weapons system." (38)
- Future AOC training and exercises should emphasize the transition from peace to war. (38)
- AOCs in all theaters should be organized, trained, equipped, and staffed using the same methodical approach used to prepare weapon systems and operators. (38)
  - This is the #1 reason for fielding the AOC as a "weapons system."
- Future Air Force leaders will have learned and honed their skills for commanding aerospace power in AOCs or by leading joint operations. This will require a cultural change within the Air Force, starting with senior leaders. According to General Lloyd Newton, Commander of Air Education and Training Command, this senior leadership initiative will eventually reach the young men and women just entering the Air Force. (51)
  - This is another reason why we study these topics at ABC!

(INTERNAL TRANSITION): THROUGHOUT THIS COURSE, YOU HAVE STUDIED AIR FORCE DOCTRINE (AND SOME JOINT DOCTRINE) AS WE WOULD EMPLOY IT UNDER "IDEAL" SITUATIONS--THAT IS, WHEN THE JOINT FORCE IS FREE TO ACT AS IT SEES FIT. LET'S DISCUSS HOW OUR DOCTRINE FUNCTIONED IN OPERATION ALLIED FORCE.

FUQ: HOW FREE WERE WE TO APPLY OUR DOCTRINE IN OPERATION ALLIED FORCE? SPECIFICALLY, WHICH "CONTEXTUAL ELEMENTS" DID WE HAVE TO COPE WITH?

AR:

- The political situation of Operation ALLIED FORCE did not allow us to apply our doctrine in an ideal manner.
- Aerospace doctrine, in an optimal application, calls for aerospace forces to seize the initiative by simultaneously striking at an adversary's centers of gravity. This concept capitalizes on the inherent flexibility of aerospace power to achieve mass and maneuver in parallel attack, fulfilling the joint doctrine concepts of simultaneity and depth. Such efforts achieve simultaneous military effects at the strategic, operational and tactical levels. (40) (This is what we <u>wanted</u> to do in ALLIED FORCE.)
- Traditionally, air planners **assume** political conditions that will allow the most efficient employment of aerospace power--the latitude to optimize survivability, target effects, and collateral damage considerations, as well as to select targets and conduct operations. (40)
  - **<u>However</u>**, During the air war over Serbia, such latitude did not exist. The intensity and violence that would have been necessary to optimize military planning in accordance with Air Force doctrine was not acceptable to all members of the 19-nation Alliance. (40)

FUQ: OPERATION DESERT STORM AND OPERATION ALLIED FORCE WERE BOTH MULTI-NATIONAL OPERATIONS: WHY WEREN'T WE ABLE TO APPLY OUR DOCTRINE IN ALLIED FORCE WITH THE SAME LATITUDE WE ENJOYED IN DESERT STORM?

AR:

- The United States **<u>led</u>** the coalition in DESERT STORM, but was just <u>one</u> of 19 "equal" NATO partners involved in ALLIED FORCE.
- The US selected targets in DESERT STORM, but in ALLIED FORCE, NATO member nations had "veto power" in target selection.

FUQ: ACCORDING TO THE READING, WILL FUTURE MULTI-NATIONAL OPERATIONS MORE LIKELY RESEMBLE DESERT STORM, OR ALLIED FORCE?

AR:

- The reading predicts they will more likely resemble ALLIED FORCE.
- The AF is likely to face future campaigns that reflect the way the air war over Serbia was fought--multinational coalition efforts that require extensive

coordination with political authorities on issues from strategies to tactics. Given this prospect, the Air Force has to plan and prepare its doctrine and procedures to operate more effectively in such an environment. (pp. x & 39)

*{**Instructor Note:** Explain to the students that even though the readings highlight the ways ALLIED FORCE indicated "gaps" in our doctrine, our doctrine certainly does anticipate being involved in multi-national operations. For instance, at this point in the discussion, read to the students the following selection from Joint Pub 1, Joint Warfare of the Armed Forces of the United States (page xii):*

Since the Revolutionary War, American military operations have benefited from participation by other like-minded countries. The Armed Forces of the United States must be prepared to operate abroad within a multinational framework, and should be prepared to operate under other-than-US leadership. However, US forces must maintain the ability to operate unilaterally across the range of military operations. US multinational operations adhere to four tenets. **Respect** confirms the importance of genuine partnership and includes due regard to each partner's culture, religion, customs, history, and values. **Rapport** is a personal direct relationship that facilitates teamwork and unity of effort. **Knowledge of partners** is vital, and as important to success as knowledge of the enemy. **Patience** is needed because it takes time to establish respect, rapport, knowledge of each other, and understanding and agreement on the best methods of accomplishing the common mission. Unity of effort, assuring unified action, for multinational operations requires clear and effective command and control structures. Consensus and compromise are vital in multinational military operations characterized by voluntary participation by the partners who retain their sovereignty and national interests.

Even though this edition of Joint Pub 1 is dated 14 November 2000 (after ALLIED FORCE), previous editions of this Joint Pub (at least as far back as the 11 November 1991 edition) include sections outlining these same concepts. The 1991 edition was published during the elder President Bush's administration--probably incorporating lessons learned in Operation DESERT STORM.}

FUQ: LET'S CONSIDER ONE OF THE MOST SIGNIFICANT WAYS ALL OF THE CONTEXTUAL ELEMENTS WE'VE DISCUSSED AFFECTED THE "OPERATIONAL ART" IN ALLIED FORCE: HOW DID ALLIED FORCE DIFFER FROM EVERY PREVIOUS CAMPAIGN, WITH RESPECT TO THE ROLE PLAYED BY THE AIR COMPONENT?

AR:

- The air component was employed in this war as a supported force pursuing the coalition's objectives. (34)
  - In other words, unlike other campaigns such as Operation DESERT STORM, NATO decided not to execute a ground campaign. Operation ALLIED FORCE was the **first** large-scale military operation ever **won through aerospace power, alone.**
- Thus, the air war presented a unique combat environment in which the traditional "supporting or supported" roles of air and ground forces were reversed. (34)
  - Traditionally, the Land component is the "supported" force.
  - Traditionally, the Air component is the "supporting" force.
- But operations such as ALLIED FORCE, for which the Air component is the supported force, require new thinking regarding the doctrine, tactics, techniques and procedures senior leaders should use to ensure that the competencies of each service are effectively employed to achieve political and military objectives. (34)
  - For instance, the task faced by the aerospace power component was complicated by the fact that Allied political leaders had publicly stated that ground forces would not be employed in Kosovo. Without the threat of a ground invasion, Serbian forces were free to disperse and hide from NATO aircraft. (23)
  - **Air operations** normally **rely on the land component** to find and fix enemy ground forces. It was not until after Task Force Hawk arrived that the air component commander was able to take advantage of the Army's corps-level intelligence capabilities that focused on the movement of enemy ground forces. (23)

FUQ: NOW, CONSIDER THE JAOP PROCESS AND THE AOC: IN WHAT WAYS COULD COALITION WARFARE AFFECT THE JAOP AND COMBINED AOC (OR "CAOC") PROCEDURES IN THE FUTURE, JUDGING FROM THE ALLIED FORCE EXPERIENCE?

AR:

- **JAOP:** In future air campaigns, air commanders must continue to be sensitive to the political realities of operations and understand that target selection may be driven as much or more by political restraints as by military strategy. (41)

- Concerns for maintaining Alliance cohesion greatly diminished the application and results of an effects-based process in this campaign. (41)
- In determining which targets to approve for attack, commanders had to respond to political pressures calling for intensified military effort on objectives linked to fielded forces (which politicians considered more important than strategic targets). (41)
- As General Jumper noted, "We wanted to get the political guidance and commander's intent and apply that to the target sets to achieve our objectives. We wanted to give the targets to our planners, who would package the weapons and the force for effectiveness and efficiency...but we never achieved that sequence of events." (41)
- **CAOC:** Concerns about collateral damage led to restrictions in the way the air war was fought. These restrictions required new tactics and innovative procedures--from improved intelligence collection to **flexible targeting**. In some instances, the CAOC was able to divert attack aircraft to new targets. However, some target changes and revocations at the political level caused missions to be cancelled at the last minute, or aborted while aircraft were en route to pre-planned targets. (35)
  - To operate under such circumstances in the future, the Air Force needs to continue to improve its abilities to cope with multiple, changing target sets without disrupting planned attacks on pre-approved targets. (35)

FUQ: IF WE COULDN'T STRIKE THE TARGETS OUR DOCTRINE TAUGHT US TO STRIKE, WHAT KIND OF CAMPAIGN DID WE FIGHT?

AR:

- According to General Wesley Clark, NATO's Supreme Allied Commander Europe (SACEUR), an **incremental campaign** was necessary in this war. "The lesson is we should do as much as we possibly can, as rapidly as we can do it. But to the extent that an incremental campaign was essential to maintain Alliance cohesion, it was the right thing to do," he said in a *Washington Post* interview. (40)
- While executing this incremental campaign, however, the Alliance may have spawned unintended consequences. Arguably, this approach allowed the enemy to adjust to the offensive and led them to underestimate NATO's political determination, possibly prolonging the war. (40)
- NATO was able to tolerate the inefficiencies in execution attributed to political restraints principally because of the lack of Allied casualties. (40)

- Aerospace power is inherently flexible in application, but must be committed in a timely manner in order to fully exploit its capabilities. Over-emphasizing flexibility can become disruptive to operations, leading to increased risk. (40-41)

FUQ: SO, WHAT COURSE DOES THIS CHART FOR THE FUTURE? SHOULD WE CONDUCT ONLY "IDEAL" CAMPAIGNS? OR, SHOULD WE "UPDATE" OUR DOCTRINE?

AR:

- Operation Allied Force uncovered several areas where theory and doctrine need to catch up with emerging lessons in aerospace power application. (48 and xiii)
- For example, this contingency defined the need to articulate counterland doctrine when the air component is the supported force for missions and tasks normally associated with the land component. (48 and xiii)
- Horizontal integration of ISR and melding seams between sensor and shooter require appropriate integration with capabilities from other services and other nations. (49 and xiii)
- Finally, the nature of this conflict prompts re-examination of aerospace power theory and doctrine to account for their employment under limits imposed by restricted, incremental, and phased air operations. (49 and xiii)
- The political complexity of ALLIED FORCE alerted airmen to the existence of limits to the flexibility of airpower. Through the lessons of the air war over Serbia, commanders and leaders should develop and modify training, doctrine, and technology required to deliver victory from the air and space when tasked to do so. (36)

FUQ: IS THAT THE ONLY ANSWER? DID THE READING OFFER ANY POSSIBLE TECHNIQUE FOR THE MILITARY TO IMPROVE ITS ABILITY TO SUGGEST COURSES OF ACTION IN THE FUTURE?

AR:

- As stewards of the nation's aerospace power, the Air Force must continue to educate and train a cadre of people who can lead and integrate the nation's aerospace power in support of international diplomacy as well as military campaigns. These must be airmen who are skilled in aerospace operations and support, who have mastered the art of warfare and campaign planning, and who can think beyond their own weapon systems. (51)

- To properly integrate the effects aerospace power can produce, commanders and staffs need to be better trained in joint and aerospace concepts and doctrine and their applications at the operational level. (ix)
- Training, exercises, wargames, and professional military and continuing education should be used to prepare military leaders so they can **properly advise political leaders** on the **force effectiveness implications** of various courses of action. (ix)
- This is yet another reason why we study these topics at ABC!

INTERIM SUMMARY (Instructor Note):

1. Include students' ideas that support main points.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

(TRANSITION): NOW THAT WE'VE DISCUSSED SOME OF THE OPERATIONAL-LEVEL IMPLICATIONS OF OPERATION ALLIED FORCE, LET'S TAKE A LOOK AT SOME OF THE LESSONS LEARNED REGARDING THE AIR FORCE'S EMPLOYMENT OF ITS CORE COMPETENCIES.

c. MP II: Core Competencies and Operation ALLIED FORCE: 0:40 (1:25)

LOQ: ACCORDING TO YOUR READING, HOW DID AIR AND SPACE SUPERIORITY CONTRIBUTE TO OPERATION ALLIED FORCE?

AR:

*{**Instructor Note:** Unless otherwise noted, the ARs appear in the Initial Report's section on Air and Space Superiority--pp. 52-53.}*

- NATO achieved air superiority at the start of combat operations and retained it throughout the air war over Serbia.
- Only two manned NATO aircraft were downed by enemy forces.
  - Arguably, the extremely low attrition rate was the primary factor that allowed the air component to overcome the disruptions of target approval processes and campaign restrictions.

- General Mike Ryan spoke of air superiority in June 1999: "Against a well-equipped, well-trained air force and integrated air defense system, we essentially owned the air. [The Serb IADS] went into a mode of trying to hide... We forced it to become essentially ineffective."
- **However:** the Air Force was not satisfied with its suppression and destruction of enemy air defenses.
- The enemy used innovative tactics. Serb air defenses were redundant, flexible, and adaptable, and there were as many SAMs fired at NATO aircraft on the last day of the air war as on the first. (43)
- The Air Force needs to be able to find and kill non-cooperative defensive systems (those that are hardened, mobile, or concealed) much more effectively than it can today.
- General Richard Hawley said, "one of the issues that needs to be examined in the aftermath … is, have we appropriately prioritized our research and development activities in order to take out an uncooperative IADS?"
- In the future, air forces may still be held at risk by more effective and sophisticated enemy air defenses than those the Serbs fielded. To avoid this, the Air Force should develop air superiority systems that can operate freely in a hostile environment, seek out and fix critical IADS nodes, and effectively attack and destroy enemy air defenses.
- **Space Superiority**: Space capabilities supported precision engagement, information superiority, global attack, and many intelligence, surveillance, and reconnaissance requirements. Success with non-traditional applications of infrared systems suggest important tactical and operational applications for such systems as the Space-Based Infrared System (SBIRS), (which will replace the Defense Support Program (DSP) satellite system.
- General Richard Myers, CINC, U.S. Space Command, "In terms of using space assets, this was probably the best we've done--surely superior to Desert Storm from everything we can learn. But there's still a long way to go before space is really integrated with the rest of the campaign."
- Space superiority was assumed from the start of hostilities. Serbia didn't threaten our space capabilities.
- **However**, Space was a neutral sanctuary that both the US and Serbia could use to their own advantage. We rely heavily on space today, and that dependence is expected to grow in the future. Access to space is **increasingly available to potential adversaries**. In future operations, we should characterize (or, "analyze") the space threat--as is done for land, sea, and air threats.

- The AF should also continue to improve its integration of space capabilities into campaign plans. Further work is also needed to clarify space control policies and defensive counterspace capabilities. Combatant commanders may need selective pre-approval authority for specific space-based actions.

FUQ: HOW WELL WAS INFORMATION SUPERIORITY EMPLOYED DURING OPERATION ALLIED FORCE?

AR:

*{**Instructor Note:** Unless otherwise noted, the ARs appear in the Initial Report's section on Information Superiority--pp. 54-55.}*

- In future operations, information warfare (IW) planners should establish a comprehensive, theater-wide, joint and combined IW architecture that supports the JFC's objectives at the strategic, operational and tactical levels.
- As a subset of both air superiority and information superiority, many of the participants saw the need for enhanced **electronic warfare** capabilities with which to attack an opponent's defenses and destroy his ability to view and understand the battlespace.
  - For example, measurement and signature techniques might help to locate IADS elements whose radars are not transmitting or are in hiding. Multispectral sensors would also enhance the Air Force's ability to find and attack hidden targets.
- At the same time, current electronic combat systems are approaching obsolescence and are geared to technologies that are rapidly being replaced in the marketplace by state-of-the-art technology.
- Furthermore, the AF had to rely on EA-6Bs (flown by both Marine Corps and joint Air Force/Navy crews) deployed from U.S. Central Command & U.S. Pacific Command to accomplish one of its core competencies.
- The critical need for improved battlespace awareness support tools was most apparent as NATO tried to locate and destroy Serbia's hidden IADS and ground forces in Kosovo. From sensor-to-shooter, the Air Force must do a better job of quickly focusing the aircrews' eyes and weapons on the targets.
- Commanders didn't use ISR systems as effectively as they could. At all levels, commanders heavily tasked ISR systems to provide information that did not necessarily relate to the air campaign. "More information is better" seemed to be the goal, instead of carefully metering demands on ISR resources for effects-based targeting. (42)

FUQ: ACCORDING TO YOUR READING, HOW WAS RAPID GLOBAL MOBILITY USED TO SUPPORT THE WAR EFFORT?

AR:

*{**Instructor Note:** Unless otherwise noted, the ARs appear in the Initial Report's section on Rapid Global Mobility--pp. 55-56.}*

- Rapid Global Mobility proved key to NATO's responsiveness throughout the war. The air mobility system simultaneously supported the increase of theater forces from 3 to 10 wings, performed a major humanitarian relief operation, and deployed Task Force Hawk. Air mobility forces deployed to locations such as the international airport at Budapest and supported the build-up of bare bases in Turkey.
- Rapid global mobility was highlighted by several successful new procedures: the integration of theater, U.S.-based, and commercial airlift; revised standards for determining whether to use aircraft for deployment or sustainment; a reasonable use of surface transportation; and an unprecedented ability to track parts and supplies during shipment. (46)
- Tankers provided the backbone of the air support effort, since nearly every combat mission required air refueling. For the future, the accelerated life-cycle costs of the air mobility fleet's significant participation will need to be addressed, particularly in view of the remaining life expectancy of C-141 and KC-135 aircraft.
- General Tony Robertson: "U.S. foreign policy doesn't happen without air mobility... This was USAFE's and USEUCOM's war, and air mobility played a frontline part in it. It would not have happened without airlift and air refueling." The C-17 was the workhorse in deploying assets, and its 97% departure reliability rate was a major success.
- **<u>An example of Rapid Global Mobility: Task Force Hawk.</u>** While Joint Task Force Shining Hope was beginning to bring needed supplies to refugees in Albania, USCINCEUR directed the deployment of 24 U.S. Apache attack helicopters and a full command and support element (including a Corps headquarters, Army composite armor brigade, artillery support and counter battery radar, and full communications & logistics support) from Germany to Albania. (21)
  - The combination of deploying USAF forces to the forward area, deploying Task Force Hawk, and providing humanitarian assistance

through Joint Task Force Shining Hope created a tremendous mobility commitment for the Air Force. (21)
    - The combined efforts of Air Mobility Command and USAFE made this deployment possible. Airlifters moved 7,745 passengers and 22,937 short tons of equipment into Tirana for Task Force Hawk alone. (21)
    - The C47 fleet **flying under USAFE control** in support of Task Force Hawk flew over 700 airlift missions in the theater. (21)
    - This marked the **first time** Air Mobility Command had granted **tactical control** of any of its strategic airlift fleet to another command in a major conflict. (21)
    - While this practice streamlined the command relationship, it highlighted potential shortfalls in the C-17 force structure, and raised concerns over the ability of the United States to meet the air mobility demands of two nearly simultaneous major theater wars. (21)
- **Problems.** Force sustainment became a concern when it became obvious that, at then current rates of expenditure, precision-guided munitions (PGMs) and CALCMs would face severe shortfalls--for current global commitments, future employments, and crew training. USAFE logisticians had to retrieve pre-positioned munitions stored afloat. (24)
    - I.e., Air Force Rapid Global Mobility couldn't satisfy the demand for munitions--we had to rely on pre-positioned naval supply ships
    - General Ryan expressed serious concerns about this issue: "We were expending munitions like they were going out of style. I worried [about] munitions probably more than I worried anything else during this conflict, other than the loss of folks... You are always mal-positioned, no matter where you have your munitions... If you need munitions, figure out what you need, double that, and add forty-five days. Because the last thing you want to do is run out. So I pushed very, very hard to move the munitions ships forward." (48)
    - Lesson: Forces must be able to shift quickly from one contingency to another. Senior Air Force leaders must continuously analyze the force's ability to make such dynamic shifts between theaters. (47)

FUQ: HOW WAS GLOBAL ATTACK EMPLOYED DURING THE WAR?

AR:

*{**Instructor Note:** Unless otherwise noted, the ARs appear in the Initial Report's section on Global Attack--p. 55.}*

- Nothing so well represented Air Force capabilities to conduct global attack in the air war over Serbia as the U.S. Air Force bomber fleets.
- B-2 Spirit, B-1B Lancer, & B-52 Stratofortress were employed concurrently for the first time in history.
  - Facing their initial combat test, B-2s launched from their Midwest home base and flew non-stop to the Balkans to deliver their precision-guided munitions. The B-2 combined on-board systems with GPS guidance to prove even more accurate than planners had expected.
  - As a result, the B-2 could precisely engage multiple targets per sortie, thus destroying a disproportionate share of total targets struck in some of the most heavily defended areas of the conflict. Technologies under development will make the B-2 even more deployable in future conflicts, resulting in increased sortie generation and mission effectiveness.
- The B-52 and B-l brought to the conflict massive firepower from inexpensive, unguided bombs, plus the B-52's precision-guided munitions.
  - B-52 also carried conventional air-launched cruise missiles (CALCMs).
- The reliable performance of these bombers reinforced the expected benefits of long range, large payload offensive platforms in a mix of forces that can be made available to apply airpower anywhere in the world.
  - The Multiple Source Tactical System (MSTS) provided real-time intelligence in B-l and B-52 cockpits. This was a prototype capability that should be pursued for more permanent solutions.

FUQ: HOW WAS AGILE COMBAT SUPPORT USED TO SUPPORT OPERATION ALLIED FORCE?

AR:

*{**Instructor Note:** Unless otherwise noted, the ARs appear in the Initial Report's section on Agile Combat Support--p. 56.}*

- Logistics support was a success: USAF units deployed with only enough supplies to begin operations, and then used all means available to provide the follow-on sustainment flow.
- Nevertheless, further improvements are needed to meet the needs of the Expeditionary Aerospace Force. According to General George Babbitt, Commander of Air Force Materiel Command, "We really need to do more than mouth words about developing lighter, leaner deployment packages."

- He suggests the future will depend upon munitions that are smarter and smaller. Smarter, so that the force needs fewer of them, and smaller, so that the Aerospace Expeditionary Forces can carry their weapons with them, rather than depending on pre-positioning or sea-land lift. Such concepts are necessary to support rapid responses with airpower in future conflicts.
- **Communications**. Communications also benefited from lessons learned during NATO and US force deployments to the region in the fall of 1998.
  - By using commercial communications infrastructure in Europe, the AF overcame shortfalls in military communications and ensured an unprecedented flow of data and information in support of combat ops.
  - For NATO operations, the ATO has to be disseminated via NATO-secure transmission media. The NATO classified system quickly bogged down.
  - Using the Secure Internet Protocol Router Network (SIPRNet, our computer network classified up to the Secret level) was hindered by policies that restricted mixing NATO and U.S. classified information, but USAFE communications and intelligence personnel devised a solution. This "pipe within a pipe" worked extremely well, reducing ATO dissemination time from several hours to a matter of minutes.
  - For the future, the Air Force must resolve the issue of disseminating classified NATO air tasking orders to participating units outside the theater--such as U.S.-based strategic airlifters.

FUQ: HOW WAS PRECISION ENGAGEMENT EMPLOYED DURING THE OPERATION?

AR:

*{**Instructor Note:** Unless otherwise noted, the ARs appear in the Initial Report's section on Precision Engagement--pp. 53-54.}*

- Significant technological improvements to aircraft systems and space-assisted delivery means proved themselves in the air war over Serbia. Precision-guided munitions (PGMs) proved extremely accurate and effective, and foreshadow how future wars will be fought. This was the first conflict in which bomber aircrews could re-target their weapons in flight and deliver their ordnance on target regardless of weather or darkness. (39)
- Combat Search And Rescue (CSAR) proved critical. Dramatic rescues of downed F-117 and F-16 pilots denied Milosevic valuable propaganda coups.
  - **However**, the CSAR crews behind these daring rescues were primarily AF Special Ops personnel. Since CSAR was their secondary mission,

these missions degraded their ability to perform their primary Spec Ops missions. Due to in-theater CSAR deficiencies, commanders relied heavily on Spec Ops community until CSAR-dedicated HH-60 helicopters and HC-130 aircraft arrived. (43-44)
    - The rescues revealed a <u>lack of understanding</u> within the CSAR community and supporting forces of the required planning factors, tactics, techniques, and procedures to execute a CSAR mission. In the future, if dedicated CSAR crews are to be efficiently integrated into their role with less risk, the AF needs to improve CSAR training and require participation in more Joint and composite force exercises. (43-44)
- The AF employed UAVs with great success. Commanders used Predators to conduct battle damage assessments and to detect emerging targets in Kosovo. During the air campaign, airmen watched Predator video in real-time for visual cues to mobile Serb target locations, which they could quickly provide to pilots. Toward the end of the war, Predator was equipped with a laser designator to help orbiting attack aircraft drop PGMs. (44)
- New technologies like the Tactical Endurance Synthetic Aperture Radar (TESAR) for the Predator enhanced tactics used to locate and destroy "uncooperative enemies"--such as an IADS that isn't radiating or mobile ground forces that aren't engaged in combat.
    - **However:** They must be better integrated & more effectively employed.
- **Other potential improvements in Precision Engagement:**
    - In the absence of engaged friendly ground forces, General Dick Hawley urged the Air Force and Joint planners to "think about very light ground forces as a facilitator for airpower, rather than airpower as a facilitator for heavy ground forces." Such forces might provide real-time targeting information or employ remote sensors, special operations targeting elements, or unconventional human intelligence collectors. Systems, structures and procedures for command and control, communications, computers, and ISR (C^4ISR) must be adequate to the mounting requirements for precision information to support precision weapons.
    - The demand for Precision Engagement requires changes in the development and acquisition of weapon systems and munitions. All-weather precision-guided munitions were expended at a tremendous rate during the war, significantly depleting stocks. We should conduct a comprehensive review of all future weapons requirements.
- **<u>Low Collateral Damage</u>:** Although some civilian casualties occurred, collateral damage was remarkably light, especially considering NATO dropped over 27,000 bombs and missiles. This was true even when accounting for the relatively few but highly-publicized anomalies caused by

targeting or weapons malfunctions. This was the most accurate air war ever fought.

- NATO's track record with precision engagement and minimal collateral damage was a key factor in holding the Alliance firmly together during the bombing. The low level of collateral damage was directly related to the increasing accuracy of PGMs, the ability to accurately locate targets, and the proficiency of U.S. and Allied aircrews
  - **However,** this benchmark for high bombing accuracy and low collateral damage may create unrealistic expectations for political leaders and the public at large in future air operations. We should anticipate the need to better predict collateral damage & analyze its effects and consequences.
- **Adverse effect of Collateral Damage:** On 7 May 99, a B-2 dropping Joint Direct Attack Munitions (JDAMs) struck the Chinese Embassy in Belgrade. The intended target was the Federal Directorate for Supply and Procurement, but the wrong coordinates were given to the B-2 crew. After this incident, NATO stopped attacking targets in the capital for almost two weeks. (26)

FOQ: WHICH CORE COMPETENCY PLAYED THE MOST IMPORTANT ROLE IN OPERATION ALLIED FORCE?

AR:

- Most interestingly, the Initial Report says the Air Force is considering whether it should "promote" one of the 17 Air and Space Functions to the status of an Air Force Core Competency, based on its significance in Operation ALLIED FORCE.
- **Command and control (C2)** is the **enabler** of the Air Force's Core Competencies. Without effective C2 procedures and systems, experienced commanders, and skilled, trained professional staff, we couldn't accomplish our missions. (57)
- In the air war over Serbia, C2 worked well at the tactical level. For example, rapid re-targeting of attack aircraft against targets detected by the Predator unmanned aerial vehicle was innovative and quite successful. (57)
- **However:** At the operational and strategic levels, Air Force leaders repeatedly noted two dominant problems. (57)
  - #1--C2 structures and coordination procedures were overlapping and confusing. The principle of unity of command must be reinforced in future training, doctrine, and operations. (57)
  - #2--The second problem was the perception that air campaign planning and execution were matters of managing the ATO production process,

> rather than commanding the air battle. Future training of combat leaders and their staffs must move beyond the current emphasis on learning the "process" of C2. Rather, they need to understand the fundamental principles that serve as the basis of the effects-based employment of aerospace power. (57)

INTERIM SUMMARY (Instructor Note):

1. Include students' ideas that support main points.
2. Add new information as necessary.
3. Reinforce key elements that will be needed throughout the lesson.

d. Conclusion: 0:05 (1:30)

1) //Summary//

We've discussed Operation ALLIED FORCE from several perspectives. First, we considered some of the challenges faced at the operational level. We considered how the political environment that shaped ALLIED FORCE is likely to play a part in future operations. We also discussed how the Air Force Core Competencies contributed to the overall campaign. As with the political challenges, the successes and difficulties encountered in executing the Core Competencies points to the way we might conduct Air Force and Joint operations in the future. Clearly, as we discovered in our discussion of Operation DESERT STORM, Operation ALLIED FORCE will prove to be an example of historical events driving changes in theory and doctrine. As you continue your own studies of military operations, ask yourselves whether we're making the most of the lessons from ALLIED FORCE!

2) //Remotivation//

Take a look at any copy of the Aerospace Power Journal: In the "Mission Debrief" section, you'll see the appeal they've addressed directly to each of you: It reads, "Aerospace Power Journal is always looking for good articles written by our readers. If you've got something to say, send it to us." Think about it: The inside cover says that the Aerospace Power Journal "is designed to serve as an open forum for the presentation and stimulation of innovative thinking on military doctrine, strategy, tactics, force structure, readiness, and other matters of national defense." As you thumb through the pages of the APJ, you'll see articles written by captains--and even, occasionally, by lieutenants! As I said before, as Airmen--and officers--**you** have a voice in the development of tomorrow's doctrine. I

encourage each of you to add your theories to the discussion of aerospace power and warfighting. Remember: From these theories, we develop the warfighting doctrine of tomorrow. And remember, too, that the lieutenants of today will be the general officers commanding the Joint force 25 years or so from now.

3) //Closure//

Airpower has been heralded as the basis of our success in Operation ALLIED FORCE. In this lesson, we've discussed how the lessons learned from ALLIED FORCE could contribute to the development of tomorrow's Joint force. It's up to you to build the Air Force of the future.